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10/762,866

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EXAMINER

TIMBLIN, ROBERT M

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/762,866	Applicant(s) TURPIN ET AL.	
	Examiner ROBERT TIMBLIN	Art Unit 2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-18, 20-28, 30-38 and 40-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-18, 20-28, 30-38 and 40-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 February 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action corresponds to application 10/762,866 which was filed on 22 January 2004.

Response to Amendment

In the submission filed 2/3/2009, Applicant amends claims 1, 5, 10, 11, 15, 20-28, 30-37, and 40-43 and cancels claims 9, 19, 29, and 39 while adding no additional claims. Accordingly, claims 1-8, 10-18, 20-28, 30-38, and 40-43 are presently pending.

Specification

The previous objection to the specification has been removed in light of Applicant's remarks and amendments.

Drawings

The replaced figure 3 submitted 2/4/2009 has been accepted and entered. Objections to the drawings are withdrawn.

Claim Objections

Examiner thanks Applicant for the correcting amendments addressing the previous claim objections. Accordingly, those objections are withdrawn.

However, upon further examination, claims 5, 15, and 35 are objected to because they now recite "comprising at least one" of rather than reciting a Markush-group-type format (i.e. "group consisting of"). Examiner is unclear if all elements of the

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list are intended to be encompassed in the scope of the claim or if only one element is required. These claims are objected to for this ambiguity; however, for purposes of examination, only one element need be required as necessitated by the language.

Clarification is respectfully requested.

35 USC § 101

Claims 21-40 now accepted for reciting an apparatus comprising a processor. As best interpreted, a processor is a hardware element to construct a statutory machine. As such, the 101 rejection to these claims are withdrawn.

Claims 42-43 are now accepted under this statute for reciting a storage medium which **cannot** be interpreted as nonstatutory subject matter (i.e. carrier waves, propagated signals per se.) in light of the amended disclosure. Specifically, the amended paragraph submitted 2/3/2009 necessitates the medium to be a hardware medium and thus the claims are directed towards statutory subject matter. As such, the 101 rejection to these claims are withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 10-18, 20-28, 30-38, and 40-43 rejected under 35 U.S.C. 103(a) as being unpatentable over 6,615,365 B1 issued to Jenevein et al. ('Jenevein' hereafter) in view of Leech, Guy ('Leech' hereafter) GB Patent No. GB2376093 (i.e. see supplied printout pages 1-6) published 2002-12-04.

With Respect to claim 1. Jenevein teaches A method for backing up a file system in a partition comprising a plurality of allocation units, the method comprising:

copying (col. 5 line 31-32) each allocation unit (col. 3 line 52-53, col. 5 line 31; e.g. a sector or cluster etc.) occupied by a plurality of files (col. 11 line 56-65) of the file system (drawing references 102, 104, and col. 5 line 46) to a locally-stored image file (e.g. an "in-partition image"; col. 5 line 7-10, col. 12 line 65-col. 13 line 5), wherein the locally-stored image file (e.g. an "in-partition image"; col. 5 line 7-10, col. 12 line 65-col. 13 line 5) is located within (drawing reference 420) the same partition (col. 5 lines 7-8, and line 52) as the file system (102, 104, and col. 5 line 46) being backed up (col. 5 line 40-45, col. 14 line 22-23, col. 19 line 6-8); and

adding a directory map (col. 10 line 9-col. 11 line 2 and col. 19 line 20-32) to the locally-stored image file (e.g. an "in-partition image"; col. 5 line 7-10, col. 12 line 65-col. 13 line 5) that associates copied allocation units (col. 10 line 38) in the locally-stored image file (e.g. an "in-partition image"; col. 5 line 7-10, col. 12 line 65-col. 13 line 5) with

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names of corresponding files (col. 10 line 51-54) from the file system (102, 104, and col. 5 line 46); and

protecting the locally-stored image file from accidental user deletion or modification (col. 15 line 7-10, col. 2 lines 10-12).

Jenevein does not explicitly recite protecting by providing a filter driver that intercepts and denies requests to access.

Leech, however, explicitly recites protecting by providing a filter driver that intercepts (page 5, last 7 paragraphs; “the filter driver 24 intercepts the execution requests 22 before the lower level file system drivers...”) and denies requests to access (abstract and page 4; “the rule may deny requests”) for protecting data.

Accordingly, in the same field of endeavor, (i.e. data protection), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the teachings of Leech would have given Jenevein a way to protect locally-stored image files from so they are not easily overwritten or deleted (the need being disclosed in col. 15 lines 7-10 and col. 20 line 10-12).

With Respect to claim 2. Jenevein teaches The method of claim 1, wherein copying comprises compressing at least a subset of the allocation units (col. 8 line 63-64).

With Respect to claim 3. Jenevein teaches The method of claim 1, wherein copying comprises: maintaining a record of a pre-imaging state of the file system (col. 5 line 58-59); and

copying only allocation units occupied by files included within the pre-imaging state of the file system (col. 5 line 60-67).

With Respect to claim 4. Jenevein teaches The method of claim 1, wherein adding comprises grouping within the locally-stored image file the copied allocation units for individual files of the file system (col. 13 line 42-47).

With Respect to claim 5. Jenevein teaches The method of claim 1, wherein copying comprises storing within the locally-stored image file one or more attributes related to each file, wherein the attributes comprise at least one of ownership attributes, access-control attributes, timestamp attributes, archival attributes, indexing attributes, encryption attributes, and compression attributes (col. 10 line 49; e.g. the image comprises a date/time of creation).

With Respect to claim 6. Jenevein teaches The method of claim 1, further comprising marking a beginning point (col. 11 line 2, col. 14 line 15) of the locally-stored image file to assist in locating the locally-stored image file (col. 14 line 29-48) in the event of directory area corruption (col. 11 line 38-42).

With Respect to claim 7. Jenevein teaches The method of claim 6, wherein marking comprises storing a unique beginning-of-image marker at an initial allocation unit occupied by the locally-stored image file (col. 14 line 15-16).

With Respect to claim 8. Jenevein teaches The method of claim 6, wherein marking comprises storing at a predetermined area of the partition a location of an initial allocation unit occupied by the locally-stored image file (col. 5 line 21-24).

With Respect to claim 10. Jenevein teaches The method of claim 1, wherein protecting the locally-stored image file further initiating a process that opens and thereby locks the locally-stored image file (col. 15 line 3-10 and col. 20 line 10-12).

With Respect to claim 11. Jenevein teaches A method for restoring a file system to a partition comprising a plurality of allocation units, the method comprising:

accessing (col. 14 line 28; e.g. locating an image) a locally-stored image file (e.g. an “in-partition image”; col. 5 line 7-10, col. 12 line 65-col. 13 line 5) located within (drawing reference 420) the partition (col. 5 lines 7-8, and line 52) to which the file system (drawing references 102, 104, and col. 5 line 46) is to be restored (col. 5 line 40-45, col. 14 line 22-23, col. 19 line 6-8), the locally-stored image file (e.g. an “in-partition image”; col. 5 line 7-10, col. 12 line 65-col. 13 line 5) comprising a directory map (col. 10 line 9-col. 11 line 2 and col. 19 line 20-32) and file data for a plurality of files (col. 10 line 36-45);

initializing at least a subset (col. 1 line 41-46; e.g. formatting a partition) of the allocation units (col. 3 line 52-53, col. 5 line 31; e.g. a sector or cluster etc.) of the partition not occupied by the locally-stored image file (e.g. an “in-partition image”; col. 5 line 7-10, col. 12 line 65-col. 13 line 5) including one or more allocation units (col. 3 line 52-53, col. 5 line 31; e.g. a sector or cluster etc.) used for a directory area of the partition;

extracting the file data from the locally-stored image file (e.g. an “in-partition image”; col. 5 line 7-10, col. 12 line 65-col. 13 line 5) into the initialized allocation units without disturbing the locally-stored image file (abstract, col. 22 line 16-21); and

creating a new directory area for the partition (col. 20 line 50-51) using the directory map (col. 10 line 9-col. 11 line 2 and col. 19 line 20-32; e.g. the use of an image for restoration describes creating a new directory in the partition being restored).

protecting the locally-stored image file from accidental user deletion or modification (col. 15 line 7-10).

Jenevein does not explicitly recite protecting by providing a filter driver that intercepts and denies requests to access.

Leech, however, explicitly recites protecting by providing a filter driver that intercepts (page 5, last 7 paragraphs; “the filter driver intercepts the execution requests 22 before the lower level file system drivers...”) and denies requests to access (abstract and page 4; “the rule may deny requests”) for protecting data.

Accordingly, in the same field of endeavor, (i.e. data protection), it would have been obvious to one of ordinary skill in the data processing art at the time of the present

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invention to combine the teachings of the cited references because the teachings of Leech would have given Jenevein a way to protect locally-stored image files from so they are not easily overwritten or deleted (the need being disclosed in col. 15 lines 7-10 and col. 20 line 10-12).

With Respect to claim 12. Jenevein teaches The method of claim 11, wherein the directory map associates names for the plurality of files with corresponding portions of the file data (col. 10 line 50-60), and wherein creating comprises generating a new directory area for the partition that associates the file names with the extracted file data (col. 1 line 41-43, col. 7 line 44-50).

With Respect to claim 13. Jenevein teaches The method of claim 11, wherein creating comprises adding an indication of the locally-stored image file to the new directory area (col. 9 line 10-15).

With Respect to claim 14. Jenevein teaches The method of claim 11, wherein extracting comprises decompressing at least a subset of the file data (col. 12 line 46-47).

With Respect to claim 15. Jenevein teaches The method of claim 11, wherein the directory map indicates at least one attribute for a file (col. 10 line 37-42), and wherein creating comprises setting the at least one attribute for the file in the directory

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area (col. 10 line 25-67), wherein the at least one attribute is comprises at least one of an ownership attribute, an access control attribute, a timestamp attribute, an archival attribute, an indexing attribute, an encryption attribute, and a compression attribute (col. 10 line 49; e.g. the image comprises a date/time of creation).

With Respect to claim 16. Jenevein teaches The method of claim 11, wherein accessing comprises searching for an allocation unit containing a unique beginning-of-image marker (col. 14 line 15-16) for the locally-stored image file (col. 14 line 29).

With Respect to claim 17. Jenevein teaches The method of claim 11, wherein accessing comprises reading from a predetermined area of the partition a location of an initial allocation unit of the locally-stored image file (col. 5 line 21-24).

With Respect to claim 18. Jenevein teaches The method of claim 11, further comprising defragmenting the locally-stored image file within the partition prior to extracting the file data (col. 14 line 36-37).

With respect to claim 20. Jenevein teaches The method of claim 11, wherein protecting the locally-stored image file further comprises initiating a process that opens and thereby locks the locally-stored image file (col. 15 line 3-10 and col. 20 line 10-12).

With respect to claim 21. Jenevein teaches An apparatus for backing up a file system in a partition comprising a plurality of allocation units, the apparatus comprising:

a processor (602);

a local imager (618) to copy each allocation unit (col. 3 line 52-53, col. 5 line 31; e.g. a sector or cluster etc.) occupied by a plurality of files (col. 11 line 56-65) of the file system (drawing references 102, 104, and col. 5 line 46) to a locally-stored image file (e.g. an “in-partition image”; col. 5 line 7-10, col. 12 line 65-col. 13 line 5),

wherein the locally-stored image file (e.g. an “in-partition image”; col. 5 line 7-10, col. 12 line 65-col. 13 line 5) is located within (drawing reference 420) the same partition (col. 5 lines 7-8, and line 52) as the file system (102, 104, and col. 5 line 46) being backed up (col. 5 line 40-45, col. 14 line 22-23, col. 19 line 6-8); and

wherein the local imager (618) is to add a directory map col. 10 line 9-col. 11 line 2 and col. 19 line 20-32) to the locally-stored image file that associates copied allocation units (col. 10 line 38) in the locally-stored image file (e.g. an “in-partition image”; col. 5 line 7-10, col. 12 line 65-col. 13 line 5) with names of corresponding files (col. 10 line 51-54) from the file system (102, 104, and col. 5 line 46); and

a protection component (col. 20 line 6; PowerQuest Drive image) programmed to protect the locally-stored image file from accidental user deletion or modification (col. 15 line 7-10).

Jenevein does not explicitly recite protecting by providing a filter driver that intercepts and denies requests to access.

Leech, however, explicitly recites protecting by providing a filter driver that intercepts (page 5, last 7 paragraphs; “the filter driver intercepts the execution requests 22 before the lower level file system drivers...”) and denies requests to access (abstract and page 4; “the rule may deny requests”) for protecting data.

Accordingly, in the same field of endeavor, (i.e. data protection), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the teachings of Leech would have given Jenevein a way to protect locally-stored image files from so they are not easily overwritten or deleted (the need being disclosed in col. 15 lines 7-10 and col. 20 line 10-12).

With Respect to claim 22. Jenevein teaches The apparatus of claim 21, wherein the local imager is configured to compress at least a subset of the allocation units copied to the locally-stored image file (col. 8 line 63-64).

With Respect to claim 23. Jenevein teaches The apparatus of claim 21, wherein the local imager is configured to maintain a record of a pre-imaging state of the file system (col. 5 line 58-59) and to copy only allocation units occupied by files included within the pre-imaging state of the file system (col. 5 line 60-67).

With Respect to claim 24. Jenevein teaches The apparatus of claim 21, wherein the local imager is configured to group within the locally-stored image file the copied allocation units for individual files of the file system (col. 13 line 42-47).

With Respect to claim 25. Jenevein teaches The apparatus of claim 21, wherein the local imager is configured to store within the locally-stored image file one or more attributes relating to at least one file of the file system, wherein the file attributes are selected from the group consisting of ownership attributes, access-control attributes, timestamp attributes, archival attributes, indexing attributes, encryption attributes, and compression attributes (col. 10 line 49; e.g. the image comprises a date/time of creation)..

With Respect to claim 26. Jenevein teaches The apparatus of claim 21, wherein the local imager is configured to mark a beginning point of the locally-stored image file to assist in locating the locally-stored image file in the event of directory area corruption (col. 11 line 38-42).

With Respect to claim 27. Jenevein teaches The apparatus of claim 26, wherein the local imager is configured to mark the beginning point by storing a unique beginning-of-image marker (col. 14 line 15-16) at an initial allocation unit occupied by the locally-stored image file (col. 14 line 29).

With Respect to claim 28. Jenevein teaches The apparatus of claim 26, wherein the local imager is configured to mark the beginning point by storing at a predetermined area of the partition a location of an initial allocation unit occupied by the locally-stored image file (col. 5 line 21-24).

With Respect to claim 30. Jenevein teaches Jenevein teaches The apparatus of claim 27, wherein the protection component further comprises: a process that opens and thereby locks the locally-stored image file (col. 15 line 3-10 and col. 20 line 10-12).

With Respect to claim 31. Jenevein teaches An apparatus for restoring a file system to a partition comprising a plurality of allocation units, the apparatus comprising:
a processor (602);

an image locator (620) to find (col. 14 line 29- line 48) a locally-stored image file (e.g. an “in-partition image”) located within (420) the partition (col. 5 lines 7-8, and line 52) to which the file system is to be restored (col. 5 line 40-45, col. 14 line 22-23, col. 19 line 6-8), the locally-stored image file (e.g. an “in-partition image”) comprising a directory map (col. 10 line 9-col. 11 line 2 and col. 19 line 20-32) and file data for a plurality of files (col. 10 line 50-67);

a media formatter (602, col. 1 line 41-45) to initialize (col. 1 line 41-46; e.g. formatting a partition) at least a subset of the allocation units (col. 3 line 52-53, col. 5 line 31; e.g. a sector or cluster etc.) of the partition (col. 5 lines 7-8, and line 52) not occupied by the locally-stored image file (e.g. an “in-partition image”) including one or

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more allocation units used for a directory area (col. 20 line 50-51) of the partition (col. 5 lines 7-8, and line 52);

a data extractor (734) to extract the file data from the locally-stored image file into the initialized allocation units without disturbing the locally-stored image file (e.g. an “in-partition image”); and

a directory area builder (712) to build a new directory area (col. 20 line 50-51) for the partition using the directory map (col. 10 line 9-col. 11 line 2 and col. 19 line 20-32); and

a protection component programmed to protect the locally-stored image file from accidental user deletion or modification (col. 15 line 7-10).

Jenevein does not explicitly recite protecting by providing a filter driver that intercepts and denies requests to access.

Leech, however, explicitly recites protecting by providing a filter driver that intercepts (page 5, last 7 paragraphs; “the filter driver intercepts the execution requests 22 before the lower level file system drivers...”) and denies requests to access (abstract and page 4; “the rule may deny requests”) for protecting data.

Accordingly, in the same field of endeavor, (i.e. data protection), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the teachings of Leech would have given Jenevein a way to protect locally-stored image files from so they are not easily overwritten or deleted (the need being disclosed in col. 15 lines 7-10 and col. 20 line 10-12).

With Respect to claim 32. Jenevein teaches The apparatus of claim 31, wherein the directory map associates names for the plurality of files with corresponding portions of the file data, and wherein the directory area builder is configured to generate a new directory area for the partition that associates the file names with the extracted file data (col. 1 line 41-43, col. 7 line 44-50).

With Respect to claim 33. Jenevein teaches The apparatus of claim 31, wherein the directory area builder is configured to add an indication of the locally-stored image file to the new directory area (col. 9 line 10-15).

With Respect to claim 34. Jenevein teaches The apparatus of claim 31, wherein the data extractor is configured to decompress at least a subset of the file data (col. 12 line 46-47).

With Respect to claim 35. Jenevein teaches The apparatus of claim 31, wherein the directory map indicates at least one attribute for a file, wherein the directory area builder is to set the at least one attribute of the file in the directory area, and wherein the at least one attribute comprises at least one of an ownership attribute, an access control attribute, a timestamp attribute, an archival attribute, an indexing attribute, an encryption attribute, and a compression attribute (col. 10 line 49; e.g. the image comprises a date/time of creation).

With Respect to claim 36. Jenevein teaches The apparatus of claim 31, wherein the image locator is configured to search for an allocation unit containing a unique beginning-of-image marker (col. 14 line 15-16) for the locally-stored image file (col. 14 line 29).

With Respect to claim 37. Jenevein teaches The method of claim 31, wherein the image locator is configured to read from a predetermined area of the partition a location of at least a first allocation unit of the locally-stored image file (col. 5 line 21-24).

With Respect to claim 38. Jenevein teaches The apparatus of claim 31, further comprising an image defragmenter to defragment the locally-stored image file within the partition before the data extractor extracts the file data (col. 14 line 36-37).

With Respect to claim 40. Jenevein teaches The apparatus of claim 31, wherein the protection component further comprises a process that opens and thereby locks the locally-stored image file (col. 15 line 3-10 and col. 20 line 10-12).

With Respect to claim 41. Jenevein teaches A method for localized backup and restoration of a file system in a partition comprising a plurality of allocation units, the method comprising:

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copying (col. 5 line 31-32) each allocation unit (col. 3 line 52-53, col. 5 line 31; e.g. a sector or cluster etc.) occupied by a plurality of files (col. 11 line 56-65) of the file system (drawing references 102, 104, and col. 5 line 46) to a locally-stored image file (e.g. an “in-partition image”; col. 5 line 7-10, col. 12 line 65-col. 13 line 5), wherein the locally-stored image file (e.g. an “in-partition image”; col. 5 line 7-10, col. 12 line 65-col. 13 line 5) is located within (drawing reference 420) the same partition (col. 5 lines 7-8, and line 52) as the file system (102, 104, and col. 5 line 46) being backed up (col. 5 line 40-45, col. 14 line 22-23, col. 19 line 6-8); and

adding a directory map (col. 10 line 9-col. 11 line 2 and col. 19 line 20-32) to the locally-stored image file (e.g. an “in-partition image”; col. 5 line 7-10, col. 12 line 65-col. 13 line 5) that associates copied allocation units (col. 10 line 38) in the locally-stored image file (e.g. an “in-partition image”; col. 5 line 7-10, col. 12 line 65-col. 13 line 5) with names of corresponding files (col. 10 line 51-54) from the file system (102, 104, and col. 5 line 46)

locating the locally-stored image file within the partition (col. 14 line 29-48);

initializing at least a subset (col. 1 line 41-46; e.g. formatting a partition) of the allocation units (col. 3 line 52-53, col. 5 line 31; e.g. a sector or cluster etc.) of the partition not occupied by the locally-stored image file (e.g. an “in-partition image”; col. 5 line 7-10, col. 12 line 65-col. 13 line 5) including one or more allocation units (col. 3 line 52-53, col. 5 line 31; e.g. a sector or cluster etc.) used for a directory area of the partition (col. 5 lines 7-8, and line 52);

extracting file data from the locally-stored image file into the initialized allocation units without disturbing the locally-stored image file (abstract, col. 22 line 16-21); and

creating a new directory area for the partition (col. 20 line 50-51) using the directory map (col. 10 line 9-col. 11 line 2 and col. 19 line 20-32); and

protecting the locally-stored image file from accidental user deletion or modification (col. 15 line 7-10, col. 2 lines 10-12).

Jenevein does not explicitly recite protecting by providing a filter driver that intercepts and denies requests to access.

Leech, however, explicitly recites protecting by providing a filter driver that intercepts (page 5, last 7 paragraphs; “the filter driver intercepts the execution requests 22 before the lower level file system drivers...”) and denies requests to access (abstract and page 4; “the rule may deny requests”) for protecting data.

Accordingly, in the same field of endeavor, (i.e. data protection), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the teachings of Leech would have given Jenevein a way to protect locally-stored image files from so they are not easily overwritten or deleted (the need being disclosed in col. 15 lines 7-10 and col. 20 line 10-12).

With Respect to claim 42. Jenevein teaches A computer-readable storage medium comprising program code for backing up a file system in a partition comprising a plurality of allocation units, the computer-readable storage medium comprising:

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program code for copying (col. 5 line 31-32) each allocation unit (col. 3 line 52-53, col. 5 line 31; e.g. a sector or cluster etc.) occupied by a plurality of files (col. 11 line 56-65) of the file system (drawing references 102, 104, and col. 5 line 46) to a locally-stored image file (e.g. an “in-partition image”; col. 5 line 7-10, col. 12 line 65-col. 13 line 5), wherein the locally-stored image file (e.g. an “in-partition image”; col. 5 line 7-10, col. 12 line 65-col. 13 line 5) is located within (drawing reference 420) the same partition (col. 5 lines 7-8, and line 52) as the file system (102, 104, and col. 5 line 46) being backed up (col. 5 line 40-45, col. 14 line 22-23, col. 19 line 6-8); and

adding a directory map (col. 10 line 9-col. 11 line 2 and col. 19 line 20-32) to the locally-stored image file (e.g. an “in-partition image”; col. 5 line 7-10, col. 12 line 65-col. 13 line 5) that associates copied allocation units (col. 10 line 38) in the locally-stored image file (e.g. an “in-partition image”; col. 5 line 7-10, col. 12 line 65-col. 13 line 5) with names of corresponding files (col. 10 line 51-54) from the file system (102, 104, and col. 5 line 46); and

program code for protecting the locally-stored image file from accidental user deletion or modification (col. 15 line 7-10).

Jenevein does not explicitly recite protecting by providing a filter driver that intercepts and denies requests to access.

Leech, however, explicitly recites protecting by providing a filter driver that intercepts (page 5, last 7 paragraphs; “the filter driver intercepts the execution requests 22 before the lower level file system drivers...”) and denies requests to access (abstract and page 4; “the rule may deny requests”) for protecting data.

Accordingly, in the same field of endeavor, (i.e. data protection), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the teachings of Leech would have given Jenevein a way to protect locally-stored image files from so they are not easily overwritten or deleted (the need being disclosed in col. 15 lines 7-10 and col. 20 line 10-12).

With Respect to claim 43. Jenevein teaches A computer-readable storage medium comprising program code for restoring a file system to a partition comprising a plurality of allocation units, the computer-readable storage medium comprising:

program code to access (col. 14 line 28; e.g. locating an image) a locally-stored image file (e.g. an “in-partition image”; col. 5 line 7-10, col. 12 line 65-col. 13 line 5) located within (drawing reference 420) the partition (col. 5 lines 7-8, and line 52) to which the file system (drawing references 102, 104, and col. 5 line 46) is to be restored (col. 5 line 40-45, col. 14 line 22-23, col. 19 line 6-8), the locally-stored image file (e.g. an “in-partition image”; col. 5 line 7-10, col. 12 line 65-col. 13 line 5) comprising a directory map (col. 10 line 9-col. 11 line 2 and col. 19 line 20-32) and file data for a plurality of files (col. 10 line 36-45);

program code to initialize at least a subset (col. 1 line 41-46; e.g. formatting a partition) of the allocation units (col. 3 line 52-53, col. 5 line 31; e.g. a sector or cluster etc.) of the partition not occupied by the locally-stored image file (e.g. an “in-partition image”; col. 5 line 7-10, col. 12 line 65-col. 13 line 5) including one or more allocation

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units (col. 3 line 52-53, col. 5 line 31; e.g. a sector or cluster etc.) used for a directory area of the partition;

program code to extract the file data from the locally-stored image file into the initialized allocation units without disturbing the locally-stored image file (abstract, col. 22 line 16-21); and

program code to create a new directory area for the partition using the directory map (col. 10 line 9-col. 11 line 2 and col. 19 line 20-32); and

program code for protecting the locally-stored image file from accidental user deletion or modification (col. 15 line 7-10).

Jenevein does not explicitly recite protecting by providing a filter driver that intercepts and denies requests to access.

Leech, however, explicitly recites protecting by providing a filter driver that intercepts (page 5, last 7 paragraphs; “the filter driver intercepts the execution requests 22 before the lower level file system drivers...”) and denies requests to access (abstract and page 4; “the rule may deny requests”) for protecting data.

Accordingly, in the same field of endeavor, (i.e. data protection), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the teachings of Leech would have given Jenevein a way to protect locally-stored image files from so they are not easily overwritten or deleted (the need being disclosed in col. 15 lines 7-10 and col. 20 line 10-12).

Response to Arguments

Applicant's arguments with respect to the present claims have been considered but are moot in view of the new ground(s) of rejection.

In furtherance, Applicant argues that Jenevein does not provide a filter driver that intercepts and denies requests to access the locally-stored image file. Examiner substantially agrees that Jenevein does not teach this feature, however, upon further search necessitated by amendments, the secondary reference authored by Leech teaches this aspect. Further arguments are moot in view of the new grounds.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 6,971,018 to Witt et al. The subject matter disclosed therein pertains to the pending claims (i.e. a filter driver; e.g. col. 13 lines 1-2).

U.S. Patent Application 2001/0044904. The subject matter disclosed therein pertains to the pending claims (i.e. a filter driver; e.g. paragraphs 0037 and 0143).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT TIMBLIN whose telephone number is (571)272-5627. The examiner can normally be reached on M-Th 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. T./

Examiner, Art Unit 2167

/John R. Cottingham/

Supervisory Patent Examiner, Art Unit 2167